

Product datasheet for **RG230649**

SLC4A10 (NM_001178016) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC4A10 (NM_001178016) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC4A10
Synonyms:	NBCn2; NCBE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG230649 representing NM_001178016 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGCTCTTTAGGGTTTCTGGAATAGAAAGGTCATGCAGTCTGGAACCTGTGAGCCTTTTCAATCTC
TAAGTCATCAGAGAAATGATGAAGAAGCAGTTGTGGATAGAGGTGGAACCTGTTCTATTCTCAAACACA
CTTTGAGAAAGAAGATTTAGAAGGTCATCGAACACTATTTATTGGAGTACATGTGCCCTTGGGAGGAAGA
AAAAGCCATCGAGTCACAGGCATCGTGGTCATAAACACAGAAAGAGACAGAGAAAGAGATTCAGGAT
TAGAGGATGGAAGGGAGTACCTTCTTTGACACCCCATCACAGAGGGTACAGTTTATTCTTGAACCGA
GGATGATGACGAGGAACACATTCCTCATGACCTTTTACAGAACTGGATGAGATTTGTTGGCGTGAAGGT
GAGGACGCTGAGTGGCGAGAAACAGCCAGTGGTTGAAGTTTGAAGAAGATGTGGAAGATGGAGGAGAAA
GGTGGAGCAAGCCTTATGTGGCTACTCTTTCATTGCACAGCTTGTGTTGAATTGAGAAGTTGTATTCTGAA
TGGAACTGTGTTGCTGGACATGCATGCCAACACTTTAGAAGAAATTCAGATATGGTTCTTGACCAACA
GTGAGCTCAGGTCAGTGAATGAAGATGTACGCCATAGGGTCCATGAGGCATTGATGAAACAGCATCATC
ATCAGAATCAGAAAAAATCACCAACAGGATCCCATTGTTCTGTTCCCTTGTGATATTGGCAAGAAACA
GTCAGAACCAAATCCATGGACAAAAATGCAGGTCAGGTTGTTTCTCCTCAGTCTGCTCCAGCCTGTGTT
GAAAAATAAAATGATGTTAGCAGAGAAAAACAGCACTGTTGACTTTAGCAAGGTTGATCTGCATTTTATGA
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TATTTTAGATATCAAAGAAAAGCTCCACTTCTGGAGTGACTTCAGAGATGCTTTCAGCCTGCAGTGC



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TTAGCATCTTTTCTATTTCTCTACTGCGCGTGTATGTCTCCTGTGCATCACGTTTGGAGGACTGCTGGGAG
AAGCAACTGAAGGGCGTATAAGTGAATTGAATCTCTCTTTGGAGCATCCATGACCGGGATAGCCTATTC
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TGGACTTGTGTTTACGAAAGCGGAACTCAGCTGGTGGATGATTTGATGCCCGAGAGTAAGAAAAGAA
ACTGGAAGATGCTGAAAAAGAAGAACAAGTATGCTAGCTATGGAAGATGAGGGCACAGTACAACCTC
CCATTGGAAGGGCACTATAGAGATGATCCATCTGTGATCAATATATCTGATGAAATGTCAAAGACTGCCT
TGTGGAGGAACCTTCTGATTACTGCCGATAACTCAAAGATAAGGAGTCAAGCTTCTCTCCAAAAGCTC
CCCTTCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG230649 representing NM_001178016
Red=Cloning site Green=Tags(s)

MQSLGVSGNRKVMQSGTCEPFQSLSHQRNDEEAVVDRGGTRSILKTHFEKEDLEGHRTLFIGVHVPLGGR
KSHRRHRHRGHKHKRDRERDSGLEDRSPSFDTPSQRVQFILGTEDDDEEHIPHDLFTELDEICWREG
EDAEWRETARWLKFEEDVEDGGERWSKPYVATLSLHSLFELRSCILNGTVLLDMHANTLEEIADMVLDQQ
VSSGQLNEDVRHRVHEALMKQHQQNKKLTNRIPIVRSFADIGKKQSEPNMSMDKNAGQVVSQSPACV
ENKNDVSRNSTVDFSKVDLHFMKKIPPGAEASNILVGELEFLDRTVAVFVRLSPAVLLQGLAEVPIPTR
FLFILLGPLGKGQYHEIGRSIATLMTDEVFHDVAYKAKDRNDLVSGIDEFLDQVTVLPGEWDPISRIE
PPKNVPSQEKRKIPAVPNGTAAHGEAEPHGGHSGPELQRTGRIFGGLILDIKRKAPYFWSDFRDAFSLQC
LASFLFLYCACMSPVITFGLLGEATEGRISAIESLFGASMTGIAYSLFGGQPLTILGSTGPVLVFEKIL
FKFKCKEYGLSYLSLRASIGLWTATLCIILVATDASSLVCYITRFTEEFASLICIIFIYEAEKLFELSE
AYPINMHNDLELLTQYSCNCVEPHNPSNGTLKEWRESNISASDIWENLTVSECKSLHGEYVGRACGHDH
PYVPDVLFWSVILFFSTVLSATLKQFKTSRYFPTKVRISVDFAVFLTILCMVLIDYAIIGIPSPKLQVP
SVFKPTRDDRGWVTPPLGPNPWWTVIAAIIPALLCTILIFMDQGITAVIINRKEHLKKGCGYHLDLLMV
AVMLGVCSIMGLPWFVAATVLSITHVNSLKLESECSAPGEQPKFLGIREQRTGLMIFILMGSSVFMSTSI
LKFIPMPVLYGVFLYMGASSLKGIQFDRIKLFWMPAKHQPDFIYLRHVPLRKHVHLFTIIQMCLGLLWI
IKVSRAATVFPMMVLALVVRKLMDLLFTKRELSWLDLMPESKKKKLEDAEKEEQSMLAMEDEGTVQL
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TRTRPLE – GFP Tag – V

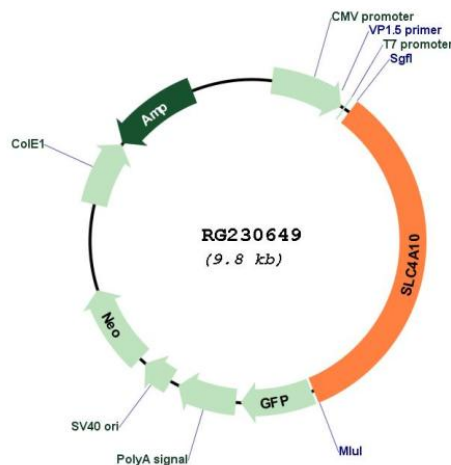
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001178016

ORF Size: 3297 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_001178016.1, NP_001171487.1</u>
RefSeq Size:	5717 bp
RefSeq ORF:	3300 bp
Locus ID:	57282
UniProt ID:	<u>Q6U841</u>
Cytogenetics:	2q24.2
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	This gene belongs to a small family of sodium-coupled bicarbonate transporters (NCBTs) that regulate the intracellular pH of neurons, the secretion of bicarbonate ions across the choroid plexus, and the pH of the brain extracellular fluid. The protein encoded by this gene was initially identified as a sodium-driven chloride bicarbonate exchanger (NCBE) though there is now evidence that its sodium/bicarbonate cotransport activity is independent of any chloride ion countertransport under physiological conditions. This gene is now classified as a member A10 of the SLC4 family of transmembrane solute carriers. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, May 2010]